

Amendments to the Claims

1. - 40. (canceled)

41. (previously presented) A pharmaceutical composition comprising a pharmaceutically acceptable excipient or carrier and a compound of Formula I:



or a pharmaceutically acceptable salt or prodrug thereof, wherein:

X is O;

Y is CN;

Z is NR_8R_9 , wherein R_8 and R_9 are independently H or C_{1-4} alkyl;

R_5 is hydrogen or C_{1-10} alkyl;

A is optionally substituted C_{6-14} aryl; and

B is an optionally substituted indolo ring.

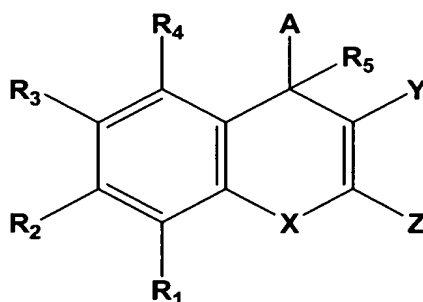
42. (previously presented) The pharmaceutical composition of claim 41, wherein A is optionally substituted phenyl.

43. (canceled)

44. (original) The pharmaceutical composition of claim 41, wherein X is O, Y is CN and Z is NH₂.

45. (original) The pharmaceutical composition of claim 41, wherein R₅ is hydrogen.

46. (currently amended) The pharmaceutical composition of claim 41, comprising a pharmaceutically acceptable excipient or carrier and a compound of Formula II:



(II)

or a pharmaceutically acceptable salt or prodrug thereof, wherein:

(a) —R₁-R₄ are independently hydrogen, halo, haloalkyl, aryl, carbocyclic, a heterocyclic group, a heteroaryl group, C₁₋₁₀ alkyl, alkenyl, alkynyl, arylalkyl, arylalkenyl, arylalkynyl, heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl, carbocycloalkyl, heterocycloalkyl, hydroxyalkyl, aminoalkyl, carboxyalkyl, nitro, amino, cyano, acylamido, hydroxy, thiol, acyloxy, azido, alkoxy, carboxy, methylenedioxy, carbonylamido or alkylthiol; provided that R₁ and R₂, or R₂ and R₃, or R₃ and R₄, taken

together with the atoms to which they are attached form a pyrrolo group, wherein said group is optionally substituted;

(b) — wherein the aryl portion of said arylalkyl, the aryl portion of said arylalkenyl and the aryl portion of said arylalkynyl are each independently C₆₋₁₄ aryl; and

(c) — said carbocyclic is C₃₋₈ cycloalkyl or C₃₋₈ cycloalkenyl;

(d) — ~~said heteroaryl, the heteroaryl portion of said heteroarylalkyl, the heteroaryl portion of said heteroarylkenyl and the heteroaryl portion of said heteroarylalkynyl are each independently selected from the group consisting of thienyl, benzo[b]thienyl, naphtho[2,3-b]thienyl, thianthrenyl, furyl, pyranyl, isobenzofuranyl, chromenyl, xanthenyl, phenoxanthiyl, 2H-pyrrolyl, pyrrolyl, imidazolyl, pyrazolyl, pyridyl, pyrazinyl, pyrimidinyl, pyridazinyl, indoliziny, isoindolyl, 3H-indolyl, indolyl, indazolyl, purinyl, 4H-quinoliziny, isoquinolyl, quinolyl, phthalziny, naphthyridiny, quinoxaliny, cinnoliny, pteridiny, carbazolyl, β -carboliny, phenanthridiny, acrindiny, perimidiny, phenanthroliny, phenaziny, isothiazolyl, phenothiaziny, isoxazolyl, furazany, phenoxaziny, 1,4-dihydroquinoxaline-2,3-dione, 7-aminoisocoumarin, pyrido[1,2-a]pyrimidin-4-one, 1,2-benzisoxazol-3-yl, benzimidazolyl, 2-oxindolyl, 2-oxobenzimidazolyl and the N-oxides thereof; and~~

(e) — ~~said heterocyclic and the heterocyclic portion of said heterocycloalkyl are each independently selected from the group consisting of tetrahydrofuranyl, pyranyl, piperidiny, piperaziny, pyrrolidiny, imidazolidiny, imidazoliny, indoliny, isoindoliny, quinuclidiny, morpholiny, isochromanyl, chromanyl, pyrazolidiny, pyrazoliny, tetronoyl and tetramoyl.~~

47. (currently amended) The pharmaceutical composition of claim 46, wherein R_1 and R_2 , ~~or R_2 and R_3 , or R_3 and R_4 ,~~ are taken together to form a structure selected from the group consisting of ~~$-\text{CH}_2\text{N}(\text{R})\text{CH}_2-$, $\text{N}(\text{R})-\text{CH}=\text{CH}-$ and $-\text{CH}=\text{CH}-\text{N}(\text{R})-$~~ , wherein R is hydrogen, C_{1-10} alkyl, haloalkyl, aryl, fused aryl, carbocyclic, ~~a heterocyclic group, a heteroaryl group,~~ alkenyl, alkynyl, arylalkyl, arylalkenyl, arylalkynyl, ~~heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl,~~ carbocycloalkyl, heterocycloalkyl, hydroxyalkyl or aminoalkyl.

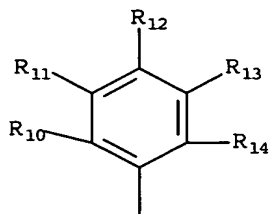
48. - 49. (canceled)

50. (currently amended) The pharmaceutical composition of claim 46, wherein X is O, ~~Y is CN~~ and Z is NH_2 .

51. (original) The pharmaceutical composition of claim 46, wherein R_5 is hydrogen.

52. (canceled)

53. (currently amended) The pharmaceutical composition of claim 46 comprising said compound or a pharmaceutically acceptable salt or prodrug thereof, wherein said optionally substituted C_{6-14} aryl is



and

(a) R_{10} - R_{14} are independently hydrogen, halo, haloalkyl, aryl, fused aryl, carbocyclic, ~~a heterocyclic group, a heteroaryl group,~~ C_{1-10} alkyl, alkenyl, alkynyl, arylalkyl, arylalkenyl, arylalkynyl, ~~heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl,~~ carbocycloalkyl, ~~heterocycloalkyl,~~ hydroxyalkyl, aminoalkyl, carboxyalkyl, nitro, amino, cyano, acylamido, hydroxy, thiol, acyloxy, azido, alkoxy, carboxy, methylenedioxy, carbonylamido or alkylthiol; or

(b) R_{10} and R_{11} , or R_{11} and R_{12} , taken together with the atoms to which they are attached form a fused portion of said optionally substituted C_{6-14} aryl, wherein said fused portion is optionally substituted.

54. (currently amended) The pharmaceutical composition of claim 53, wherein R_1 and R_2 , ~~or R_2 and R_3 , or R_3 and R_4 ,~~ are taken together to form a structure selected from the group consisting of $=CH_2N(R)CH_2-$, $N(R)-CH=CH-$ and $-CH=CH-N(R)-$, wherein R is hydrogen, C_{1-10} alkyl, haloalkyl, aryl, fused aryl, carbocyclic, ~~a heterocyclic group, a heteroaryl group,~~ alkenyl, alkynyl, arylalkyl, arylalkenyl, arylalkynyl, ~~heteroarylalkyl, heteroarylalkenyl, heteroarylalkynyl,~~ carbocycloalkyl, heterocycloalkyl, hydroxyalkyl or aminoalkyl.

55. - 59. (canceled)

60. (currently amended) The pharmaceutical composition of claim 574, wherein R₃, R₄ and R₅ are each hydrogen.

61. - 62. (canceled)

63. (previously presented) A pharmaceutical composition comprising a pharmaceutically acceptable excipient or carrier and a compound selected from the group consisting of:

2-Amino-3-cyano-4-(3-methoxy-4,5-methylenedioxyphenyl)-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(2-bromo-4,5-dimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(3-bromo-4,5-dimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(3-bromo-4,5-dimethoxyphenyl)-8-methyl-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(3,4,5-trimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(3-nitrophenyl)-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(3-cyanophenyl)-4*H*-indolo[4,5-*b*]pyran;

2-Amino-3-cyano-4-(3,5-dimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran; and

9-Acetamide-2-amino-3-cyano-4-(3-bromo-4,5-dimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran.

64. (original) The pharmaceutical composition of claim 41, further comprising at least one known cancer chemotherapeutic agent, or a pharmaceutically acceptable salt of said agent.

65. (currently amended) The pharmaceutical composition of claim 64, wherein said known cancer chemotherapeutic agent is selected from the group consisting of busulfan, cis-platin, mitomycin C, carboplatin, colchicine, vinblastine, paclitaxel, docetaxel, camptothecin, topotecan, doxorubicin, etoposide, 5-azacytidine, 5-fluorouracil, methotrexate, 5-fluoro-2'-deoxy-uridine, ara-C, hydroxyurea, thioguanine, melphalan, chlorambucil, cyclophosphamide, ifosfamide, vincristine, mitoguazone, epirubicin, aclarubicin, bleomycin, mitoxantrone, elliptinium, fludarabine, octreotide, retinoic acid, tamoxifen, Herceptin® (trastuzumab), Rituxan® (rituximab) and alanosine.

66. (original) The pharmaceutical composition of claim 41, wherein said excipient or carrier is selected from the group consisting of saccharides, starch pastes, gelatin, tragacanth, cellulose preparations, calcium phosphates and polyvinyl pyrrolidone.

67. (original) The pharmaceutical composition of claim 66, wherein said excipient or carrier is a saccharide selected from the group consisting of lactose, sucrose, manitol and sorbitol.

68. (original) The pharmaceutical composition of claim 41, wherein said excipient or carrier is a lipophilic solvent.

69. (original) The pharmaceutical composition of claim 68, wherein said lipophilic solvent is selected from the group consisting of fatty oils, fatty acid esters, polyethylene glycols and paraffin hydrocarbons.

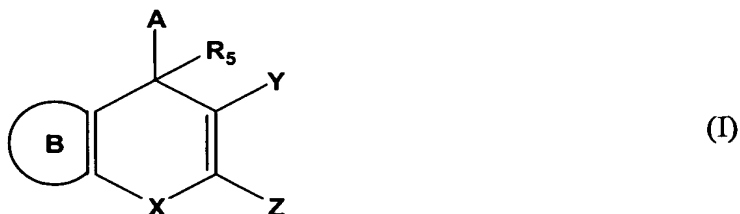
70. (original) The pharmaceutical composition of claim 69, wherein said lipophilic solvent is selected from the group consisting of sesame oil, ethyl oleate, triglycerides, polyethylene glycol-400, cremophor and cyclodextrins.

71. (original) The pharmaceutical composition of claim 41, wherein said excipient or carrier is selected from the group consisting of vegetable oils, mineral oils, white petrolatum, branched chain fats, branched chain oils, animal fats and high molecular weight alcohol (greater than C₁₂).

72. (original) The pharmaceutical composition of claim 41, wherein said excipient or carrier is a saline solution.

73. - 74. (canceled)

75. (previously presented) A compound of Formula I:



or a pharmaceutically acceptable salt or prodrug thereof, wherein:

B is optionally substituted indolo;

X is O;

Y is CN;

Z is NR_8R_9 , wherein R_8 and R_9 are independently H or C_{1-4} alkyl;

R_5 is hydrogen or C_{1-10} alkyl; and

A is optionally substituted C_{6-14} aryl.

76. (original) The compound of claim 75, wherein said compound is an optionally substituted 4H-indolo[4,5-b]pyran.

77. (original) The compound of claim 76, wherein A is optionally substituted phenyl.

78. (previously presented) A compound selected from the group consisting of:

2-Amino-3-cyano-4-(3-methoxy-4,5-methylenedioxyphenyl)-4H-indolo[4,5-b]pyran;

2-Amino-3-cyano-4-(2-bromo-4,5-dimethoxyphenyl)-4H-indolo[4,5-b]pyran;

2-Amino-3-cyano-4-(3-bromo-4,5-dimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran;
2-Amino-3-cyano-4-(3-bromo-4,5-dimethoxyphenyl)-8-methyl-4*H*-
indolo[4,5-*b*]pyran;
2-Amino-3-cyano-4-(3,4,5-trimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran;
2-Amino-3-cyano-4-(3-nitrophenyl)-4*H*-indolo[4,5-*b*]pyran;
2-Amino-3-cyano-4-(3-cyanophenyl)-4*H*-indolo[4,5-*b*]pyran;
2-Amino-3-cyano-4-(3,5-dimethoxyphenyl)-4*H*-indolo[4,5-*b*]pyran; and
9-Acetamide-2-amino-3-cyano-4-(3-bromo-4,5-dimethoxyphenyl)-4*H*-
indolo[4,5-*b*]pyran.

79. (canceled)

80. (previously presented) The pharmaceutical composition of claim 41, wherein said aryl is selected from the group consisting of phenyl, naphthyl, penanthrenyl, anthracenyl, indenyl, azulenyl, biphenyl, biphenylenyl and fluorenyl.

81. (previously amended) The compound of claim 75, wherein said aryl is selected from the group consisting of phenyl, naphthyl, penanthrenyl, anthracenyl, indenyl, azulenyl, biphenyl, biphenylenyl and fluorenyl.

82. - 93. (canceled)